

Name: (Key)
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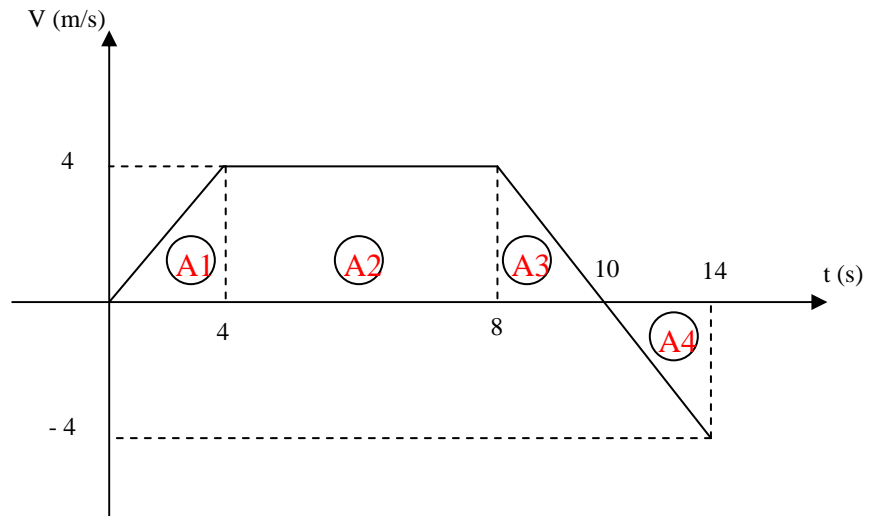
Sec.# (8) ---Quiz (2), Ch#2
Phys 101 (Term 032)-(F. Enaya)

S.N:

Show your steps clearly for full credit.

Q. The (Velocity – Time) graph of a runner along a straight line is shown in the following graph.

- Find the total distance he traveled in 14 seconds.
- Find the average acceleration of the runner during the first 10 seconds.



> a.

Total distance = Absolute number of the total area under the curve (All positive)

$$\Rightarrow A1 + A2 + A3 + A4 =$$

$$(0.5 \times 4 \times 4) + (4 \times 4) + (0.5 \times 2 \times 4) + (0.5 \times 4 \times 4) =$$

$$= 36 \text{ m}$$

> b. During the first 10 s :

$$a_{\text{avg}} = (v_2 - v_1) / (t_2 - t_1) = (0 - 0) / 10 = 0$$